

REMARKS

Status of the Claims

Claims 1-3, 7, 18, 21, 23, 26-28, 30, 31-37, 40, 44, 51, 53, 55 and 56 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,190,170 to Morris et al. ("Morris"). Claims 4, 25, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris in view of U.S. Patent No. 5,967,775 to Shahid et al. ("Shahid"). Claims 5, 6, 19, 20, 24, 41, 42, and 46-49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris. Claims 7-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris in view of U.S. Patent No. 6,206,691 to Lehmann et al. ("Lehmann").

Applicants note with appreciation that the Examiner has indicated that Claims 12-17 and 43 would be allowable if rewritten in independent form to include all of the limitations of the claims from which they depend. Claims 12-17 and 43 have been rewritten accordingly and are therefore allowable.

Independent Claims 1, 28, 30, and 44 are Patentable over Morris

Claims 1 and 28 have been amended to incorporate the recitations of Claims 18 and 19, that is, "a single grey reference colour indicator placed in close proximity to the object or associated with the means for taking a coloured image of an object so that the captured image contains the reference color". Claims 30 and 44 have been amended to recite the step of "placing a single grey reference colour indicator in close proximity to the object." As noted above, Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Morris.

Applicants respectfully submit that in order to establish a *prima facie* case of obviousness under § 103, three basic criteria must be met. The prior art reference must teach or suggest *all* the claim limitations. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art, to modify the reference or to combine reference teachings, and there must be a reasonable expectation of success of the combination. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found *in the prior art*, not in applicant's disclosure. See MPEP § 2143.

As conceded in the Action, Morris discusses only "black and white" reference tabs (column 4, line 47). The Action states that "using reference colors other than the black and white suggested by Morris et al...would have been obvious to one of ordinary skill in the art as a matter of routine design and practice."

The black and white tabs discussed in Morris are "manufactured using homogenous, non-reflective porcelains and are intended to define respective minimum and maximum Red, Green and Blue (RGB) values for each image" (column 4, lines 51-55)(emphasis added). Thus, Morris clearly discusses that a reference "perfect" black and "perfect" white are used to define a minimum and maximum value in each image.

In contrast, according to embodiments of the present invention, a single grey color reference indicator can be used to calibrate an image with respect to the color reference indicator into constituent color values. Specification, page 17, lines 1-3. A single set of specific RGB grey coordinates can be used, which may reduce errors associated with multiple reference tabs. The system in Morris uses two indicators, one black and one white, to define a minimum and maximum value for Red, Green and Blue (RGB). Therefore, the two reference color system in Morris is also different in function than the single reference color recited in the present claims, and there is no teaching or suggestion in Morris to a single grey reference color indicator.

Moreover, the two reference tabs discussed in Morris may introduce inaccuracies. On the RGB system, each coordinate has three digits (dimensions). Therefore, using the 8-bit index and 256 color look-up table described in column 5, lines 45-65, in Morris, the black and white standardization porcelains measured in RGB terms would have the coordinates 0,0,0 (for "perfect" black) and 256,256,256 (for "perfect" white). However, an almost "perfect" black could be represented by 0,0,1 or 0,1,0 or 0,0,1; a similar variation could be found for almost "perfect" white. Thus, in the Morris reference RGB system, there could be

possibly many hundreds or thousands of blacks and whites and associated errors in the reference tab standardization. Morris is silent as to how it measures what is referred to as "absolute black" and "absolute white". It is submitted that the coordinates of 0,0,0 and 256,256,256, respectively, may be very difficult coordinates to secure, especially using a camera and illumination system. Therefore, embodiments of the present invention may reduce errors by using a single grey reference value.

In view of the foregoing, Applicant's submit that it would not have been obvious to modify the Morris system to employ a single grey reference. Nothing in Morris suggests the recited system and method. The performance advantages of the single grey reference system are not contemplated by Morris. Accordingly, Applicants request that the rejection be withdrawn.

The Action cites Shahid as allegedly disclosing a polarized filter and Lehmann is cited for allegedly disclosing a digital camera having a housing, point light sources and fiber optics. Therefore, the deficiencies of Morris are not remedied by Shahid or Lehmann.

Conclusion

Applicants respectfully submit that, for the reasons discussed above, the references cited in the present rejections do not disclose or suggest the present invention as claimed. Accordingly, Applicants respectfully request allowance of all the pending claims and passing this application to issue.

Respectfully submitted,



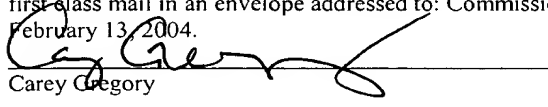
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